

REMARKS

Claims 1-19 and 39-41 are pending in the Application and stand rejected. Claims 1-19 and 39-41 have been rejected under 35 USC § 103(a).

Claim Amendments

Claim 1 has been amended to further describe the absorbent material in its dry state as:

- having at least a portion of the absorbent gelling particles fixed to the carrier layer by the glue microfibers; and
- having a majority of individual absorbent gelling particles being directly joined to an adjacent absorbent gelling particle by the glue microfibers.

Support for this amendment can be found at page 14, line 23 to page 15, line 20 and in Figure 1. In particular, the Applicants direct the Examiner to page 15 lines 11-20. As described therein, the air stream 21 comprising the absorbent gelling particles is merged with the air stream 22 comprising the glue microfibers before the integrated air stream 23 is deposited onto the carrier layer. The Applicants respectfully submit that such a process will inherently result in:

- The majority of the absorbent gelling particles being at least partially coated with the glue microfibers as the two streams merge.
- Fixation of a portion (i.e., a layer about one particle thick) of the absorbent gelling particles directly on the carrier layer by the glue microfibers.
- Joinder of a majority of the remaining absorbent gelling particles to at least one adjacent absorbent gelling particle by the glue microfibers. This joinder could include joining an overlying absorbent gelling particle to a absorbent gelling particle that is also fixed to the carrier layer and joinder of two absorbent gelling particles both of which are also fixed to the carrier layer.

Claim 1 has also been amended by inserting the word "and" between the recitation of components (c) and (d) of the absorbent material to correct a minor formality deficiency so

that the claim now clearly recites that the absorbent material comprises all of components (a) through (d).

Claim 10 has been amended to correct a typographical error in the previous amendment to the claim.

Rejection Under 35 USC § 103

Claims 1-19 and 39-41 have been rejected under 35 USC. 103 as being unpatentable over Wang, et al. (US 5,849,405) in view of Goldman, et al. (5,669,894), and Anjur, et al. (5,645,542), as set forth in the previous Office Action. In response to the Applicants' arguments, the Office Action notes that the Applicants did not amend the claims in the last response in an attempt to overcome the prior art. The Office Action further states regarding the Applicants' arguments:

- The fact that Wang's absorbent polymer aids in connecting the absorbent material to a carrier layer does not contradict, negate or preclude the use of glues and binders, as taught by Wang (col. 13, lines 25-36), to further aid the connectivity. The Office Action concludes by asserting that the glues and binders are part of the polymer and further enhance the connectivity.
- Wang specifically teaches that the absorbent material is attached to a carrier substrate at col. 6, lines 41-44.
- Goldman is used as a secondary reference to teach the use of a specific form of the glue and binders taught by Wang, i. e., microfibers. The Office Action goes on to assert that it would have been obvious to use Goldman's microfibers as the glue or binder of Wang. The Office Action also argues that the Applicants have been impermissibly attacking the references individually, instead of attacking the combination.
- The Anjur reference is only cited to teach the use of a specific fiber-forming material. The other cited references are said to teach microfibers and melting the microfibers to render them tacky.

- The failure of the Wang patent to teach specific glues and binders would lead one of ordinary skill in the art to seek for teachings of useful compositions and structures in the prior art. The Goldman patent is said to teach a specific type of glue that is successfully used in a diaper and fills in the gaps in Wang's disclosure. Thus, the combination does not use hindsight but, rather, fills gaps in the primary reference.
- Because the glue is asserted to be part of the polymer material and Wang teaches the polymer material connects materials, the glue attaches the absorbent material.
- The motivation to combine the references comes from Goldman col. 30, lines 21–23 which is said to teach that using microfibers maintains wet integrity.
- The Goldman patent teaches that the use of microfibers is successful.

The Applicants respectfully submit that the cited combination fails to establish a *prima facie* case of obviousness with respect to Claim 1 as amended and with respect to claims depending therefrom (a dependent claim has all of the limitations of the base claim) because:

- *The combination fails to teach or suggest all of the limitations of the amended claim (MPEP § 2143.03).* Specifically, an absorbent material combining the teachings of the Wang patent, the Goldman patent and the Anjur reference would comprise:
 - a) an absorbent material comprising absorbent gelling particles with a cationic polymer applied thereto (Wang col. 4, lines 37) where the absorbent material is attached to a substrate web (Wang col. 16, 41–43) by
 - b) a separate layer of microfiber glue (Goldman col. 30, lines 22–26 as further taught in Dragoo '167, Dragoo '622 and Ashton which are used as examples of how to use glues and adhesives by Goldman—This aspect of Goldman's teaching will be discussed in greater detail below) where the glue microfibers are
 - c) elastomeric and can comprise diblock, triblock and multiblock copolymers of olefinic monomers (Anjur col. 5, lines 20–37).

In other words, the cited combination fails to teach or suggest all of the limitations because the combination only teaches that the glue microfibers would be used in a separate layer between the absorbent gelling particles and a substrate web while Claim 1 as amended also describes the majority of individual absorbent gelling particles as being joined to an adjacent absorbent gelling particle by the glue microfibers.

The Applicants note that the Office Action relies on the Goldman patent to teach the use of glue microfibers. They respectfully point out that the entire discussion of glue microfibers in the Goldman patent consists of the following:

d. The use of adhesive. These include microfiber glues, resins that maintain integrity when wet (e.g. wet strength resins) and hot melt adhesives, e.g., elastic hot melt adhesives. Cf. U.S. application Ser. No. 08/153,739 (Dragoo et al.), filed November 16, 1993; U.S. application Ser. No. 08/164,049 (Dragoo et al), filed Dec. 8, 1993; and U.S. application Ser. No. 08/097,634 (Ashton et al), filed Jul. 26, 1993.

The referenced US applications, used by Goldman as examples of how to use adhesives in his invention, have now all matured into US patents (5,486,167; 5,460,622; and 5,387,208 respectively) and are attached hereto for the Examiner's convenience. The Applicants respectfully submit that because all three references used by Goldman as exemplary of the use of adhesives teach that the adhesive is used in a layer (see Dragoo '167 at col. 17, lines 30-50; Dragoo '622 at col. 18, lines 15-40 and Ashton at col. 8, lines 50-55), the Goldman patent teaches that the microfiber glue is applied as a layer. The Applicants respectfully also respectfully submit that Goldman at col. 42, line 23 to col. 47, line 20, which discusses making an adhesive-based core integrity layer, provides further evidence that Goldman only teaches using the microfibers in a layer. Therefore the cited combination fails to teach that a majority of the absorbent gelling particles are joined to at least one adjacent absorbent gelling particle by glue microfibers as is described in Claim 1 as amended.

- *There is no motivation to combine the references as cited in the Office Action because the cited combination does not suggest the desirability of the invention described by Claim 1 as amended (MPEP § 2143.01).* The Applicants direct the Examiner to page 5, line 35 to page 6, line 5 of the present application. As described therein, the present invention is intended to fix the absorbent gelling particles in a desired location in the dry state. As also noted therein, in the sentence bridging pages 5 and 6 and even more clearly in the process description found at page 14, line 23 to page 15, line 20 and in Figure 1, the present invention solves this problem by using the glue microfibers to fix the absorbent gel particles to the carrier and to hold those absorbent gel particles that are not directly fixed to the carrier in a desired location by joining them to adjacent particles that, ultimately, are joined to a particle that is directly fixed. The cited combination fails to suggest the desirability of the present invention, as exemplified by Claim 1 as amended, because:

- The Applicants point out that the Wang patent is directed to absorbent gelling particles that become connected on exposure to urine. The portion of the Wang reference relied on by previous Office Actions as showing the particles as being joined to the substrate web (Wang at col. 16, lines 41-43) states merely that the absorbent material is attached to a substrate web. Any other particle containment needs are met by an overlying layer of material (col. 16, lines 44-50).
- The Applicants do note that, in Paper No. 9, the Examiner argued that Wang, at col. 13, line 30, teaches the use of glue and binders and recognize that col. 13, lines 33-37 state that the additives, which include glue, can be associated in a form wherein the hydrogel-forming polymer and the additive are not readily physically separable. However, the Applicants respectfully submit that mentioning that an additive and a hydrogel are difficult to separate is a long way from suggesting joining adjacent absorbent gel particles with a microfiber glue as is described in Claim 1 as amended. As noted above, Wang only teaches layered glue application so the only particles exposed to the glue are those directly

applied to the glue layer. This is why an additional particle containment means, such as the overlying layer discussed at col. 16, lines 44–50 is required.

- The Applicants also point out, as discussed above, that the other references in the combination fail to disclose or suggest joining a majority of the microparticles to an adjacent microparticle using glue microfibers.

Net, because none of the individual references discusses or suggest the desirability of joining individual particles with a microfiber glue the combination also fails to discuss or suggest the desirability. In other words, the combined teachings of the cited references, knowledge of one of ordinary skill and the nature of the problem to be solved does not suggest the invention described by Claim 1 as amended and combining the individual references as has been done in the Office Action fails to meet the requirements of MPEP § 2143.01 with the result that the Office Action fails to establish a case of *prime facie* obviousness..

Given that, for at least the reasons discussed above, the Applicants have shown that Claim 1 as amended is not obvious over the combination of Wang, Goldman and Anjur and given the dependency of Claims 2–19 and 39–41 from Claim 1, the Applicants respectfully request reconsideration of the rejection of Claims 1–19 and 39–41 under 35 USC § 103(a), its withdrawal and that the claims be allowed.

SUMMARY

All of the rejections in the Office Action have been discussed as have the distinctions between the cited references and the claimed invention. No new matter has been added by the Amendment. In light of the amendments to the claims and discussions contained herein, the

Applicants respectfully request reconsideration of the rejections, their withdrawal, and allowance of all of the claims. Issuance of a Notice of Allowance at an early date is earnestly solicited.

Respectfully submitted

FOR: E. REZAI ET AL.

By 

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